

# **Extinguish** **PLUS**



**KILLS FIRE ANTS**

**DUAL-ACTION COLONY CONTROL**



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# EXTINGUISH® PLUS FIRE ANT BAIT

## STERILIZES THE QUEEN, KILLS THE WORKERS

### DUAL-ACTIVE EXTINGUISH® PLUS ELIMINATES FIRE ANT COLONIES!

The USDA estimates that fire ants cause over \$5 billion of damage annually in the United States. That's a lot of money for a small ant. What can be done to reduce the damage this pesky ant causes? Extinguish® Plus is a unique fire ant bait that controls fire ants two ways. Extinguish® Plus combines the killing action of an adulticide and the long-lasting control of an Insect Growth Regulator (IGR).

The adulticide in Extinguish® Plus starts killing worker fire ants immediately after ingestion, and the IGR prevents the queens from laying fertile eggs. The result is a one-two punch for fire ants, quick reduction of mounds and the confidence that the ants will be completely extinguished.

Extinguish® Plus is also labeled for imported and native fire ants and other ants such as harvester ants, big-headed ants and Argentine ants. Ants carry the bait back to the mound, where it is consumed — eliminating workers and sterilizing the queen.

This dual-action product is approved for indoor and outdoor use for residential and commercial properties, container or nursery stock, sod farms, rangeland, pastures, commercial turf and more. Extinguish® Plus meets all USDA quarantine requirements.



Extinguish® Plus is available in 1.5 lb, 4.5 lb and 25 lb containers to serve a wide range of application needs. The 1.5 lb container treats 1 acre; the 4.5 lb container treats up to 3 acres; and the 25 lb bag treats up to 16.6 acres.

### EXTINGUISH® PLUS HIGHLIGHTS

- Controls and eliminates colonies without relocation
- Stops young colonies from developing into problem colonies
- Starts killing ants immediately after ingestion
- Sterilizes the queen — effectively eliminating movement or rebound of colony
- Destroys visible and hidden colonies
- May be applied using either ground or aerial equipment
- Can be used as a broadcast application or used to treat individual mounds
- Can be used with confidence around people, livestock and pets
- Approved for indoor and outdoor use
- Extinguish® Plus meets all USDA quarantine requirements



# THE SERIOUS IMPACT OF FIRE ANTS

Fire ants deliver a nasty sting. They can adversely affect humans, pets, livestock (especially cattle and horses) and wildlife. In worst-case scenarios, they can cause death.

They also can deliver a financial blow, by damaging turf and ornamentals, crops and gardens, farm machinery and electrical equipment. Fire ants can be found in agricultural, urban and suburban environments and their numbers are growing. Extinguish® Plus stops this health and economic hurt.

## TURF/SPORT FIELDS/ RESIDENTIAL AREAS

### Medical

- Can lead to life-threatening anaphylactic shock
- Cause secondary infections
- Cosmetic damage

### Nuisance

- Stings are painful
- Outdoor activity curtailed
- Home/stored food infested

### Economic

- Reduce property values
- Damage electrical equipment
- Lead to medical expenses

## NURSERY

- Stings workers/customers
- Economic loss
- Shipping restriction outside of quarantine area
- Meets the USDA fire ant quarantine requirements

## COMMERCIAL EQUIPMENT

### Equipment

- Communication
- Electrical distribution
- Transportation (traffic control)
- Cooling

### Economic

- May lead to short circuits/fire
- Bore through waste containment liners
- Damage outdoor lighting

## PASTURE/RANGELAND

- Interfere with livestock grazing
- Livestock injury/death
- Infested feed

## NATURAL RESOURCES

### Conservation

- Damage to seeds and plants
- Become dominant predators in insect world
- Alter ecological balance
- Impact endangered species
- Interfere with hunting and fishing
- Reduce use of park and recreation areas
- Reduce tourism
- Reduce wildlife population

## EXTINGUISH PLUS® FACTS

- Noticeable results within a week
- Can be applied with a low-volume broadcast spreader by ground or air
- Apply when area is dry from dew or irrigation, no rain within 6 hours and when ants are foraging

# THE GEOGRAPHIC DISTRIBUTION OF FIRE ANTS

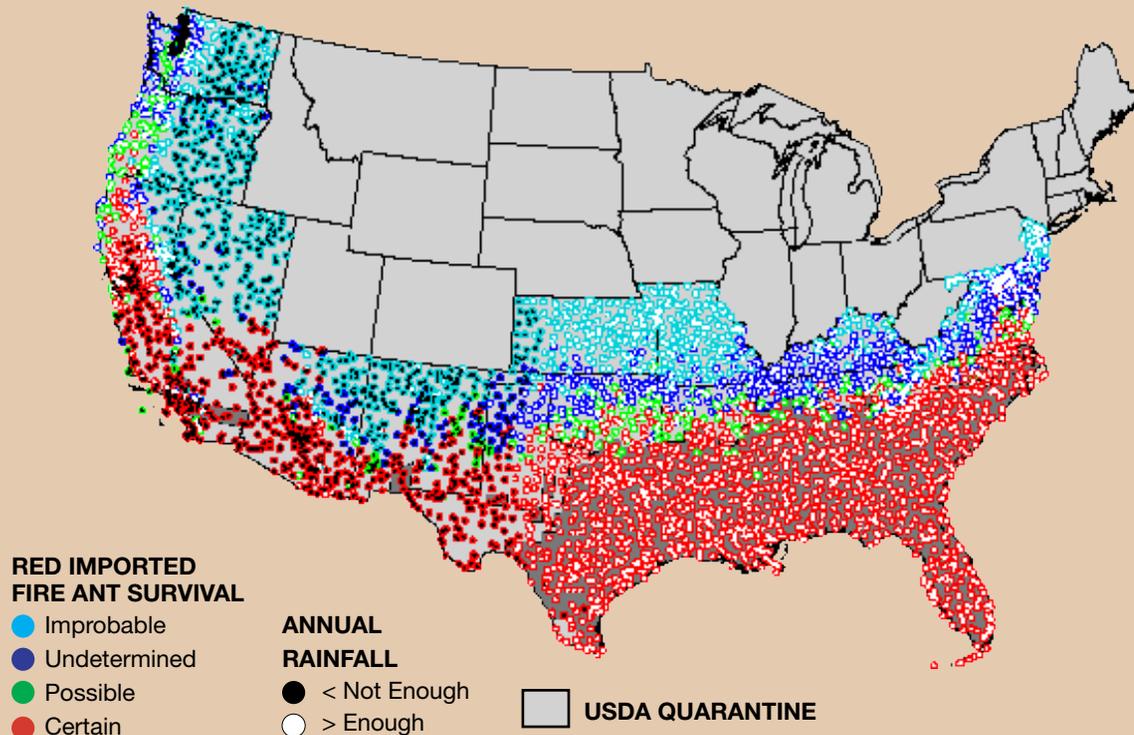
The red fire ant was introduced to the United States from South America via a shipping port in Mobile, Alabama in the 1930s. Since it first landed ashore, it has spread rapidly across the southern part of the country. Today, these ants infest over 309 million acres in 14 states and are sporadically found in Kentucky, Missouri, Delaware and Maryland.

They spread naturally through mating flights, mass movements of colonies or by floating to new locations in flood waters. They are also dispersed via shipments of soil, sod and nursery stock.

Fire ants need a moderate climate, adequate moisture and food to flourish. Infestations are more likely to occur in regions that average minimum winter temperatures above 10 degrees Fahrenheit and rainfall greater than 10 inches per year. Extinguish® Plus was made specifically to protect these regions.



**INFESTATIONS ARE MOST LIKELY TO OCCUR** in regions that average minimum winter temperatures above 10 degrees Fahrenheit and rainfall of more than 10 inches per year.



## INFESTED AREAS

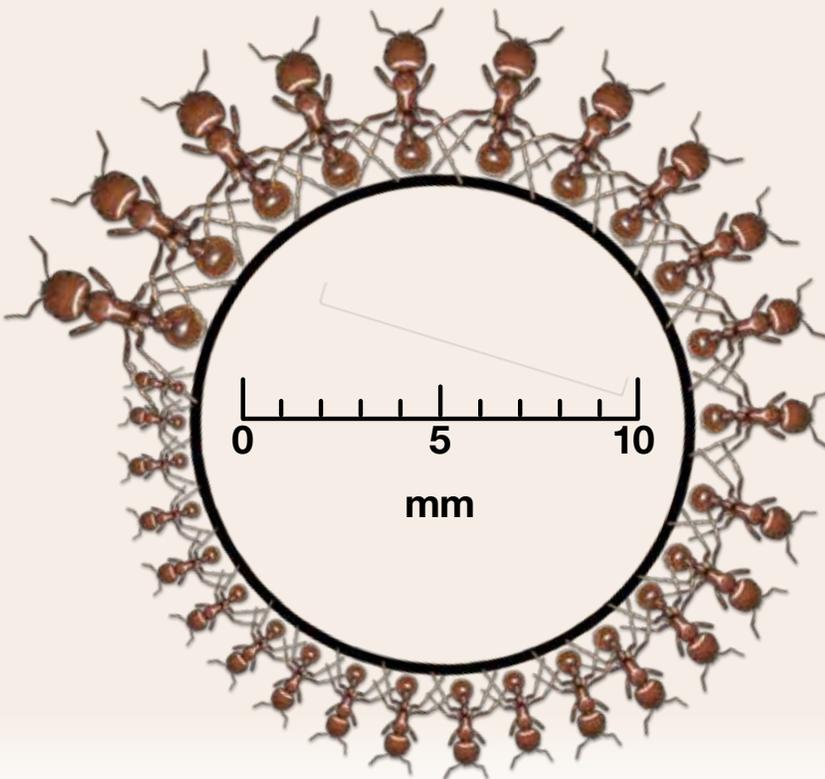
- Alabama
- Arizona
- Arkansas
- California
- Delaware
- Florida
- Georgia
- Louisiana
- Mississippi
- New Mexico
- North Carolina
- Oklahoma
- South Carolina
- Tennessee
- Texas
- Virginia

## PHYSICAL ATTRIBUTES

All ants are part of the order Hymenoptera. They can be distinguished by their chewing mouthparts and the front area of the abdomen that is constricted behind the thorax, forming the pedicel.

A fire ant has a two-node pedicel, and a hairy abdomen with a stinger at the tip. Fire ant workers are polymorphic, anywhere from 1/8 inch to 1/4 inch long. They have 10-segmented antennae ending in a two-segmented club and a mandible with four distinct teeth. The fire ant's body color is red with a black abdomen.

The fire ant queen approaches 1/2 inch in length and is dark reddish brown in color. It has the same 10-segmented antennae ending in a two-segmented club common to the worker. Queens can produce up to 800 eggs per day.



## BEHAVIOR

The fire ant typically nests in soil and builds earthen mounds. These mounds are cone-shaped and usually measure 1–2 feet in diameter and 4–18 inches in height, although some can be substantially bigger.

Mounds are usually built in open, sunny areas and are protected by a hard soil crust. Fire ants travel via underground tunnels, so there are no openings visible on mound surfaces. However, this does not let them escape from Extinguish® Plus.

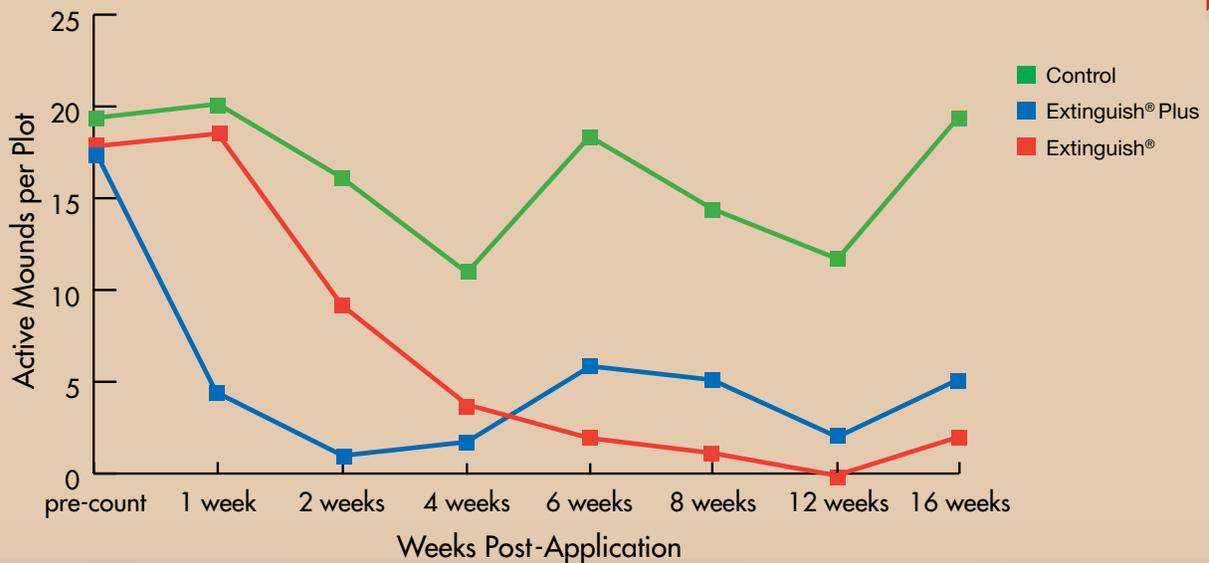
If not treated, colonies can grow to 500,000 workers and several hundred queens. A monogyne colony (with one queen) builds 40 to 150 mounds per acre. A polygyne colony (multiple queens) builds 200 to 800 mounds per acre.



# FIRE ANT ACTIVITY

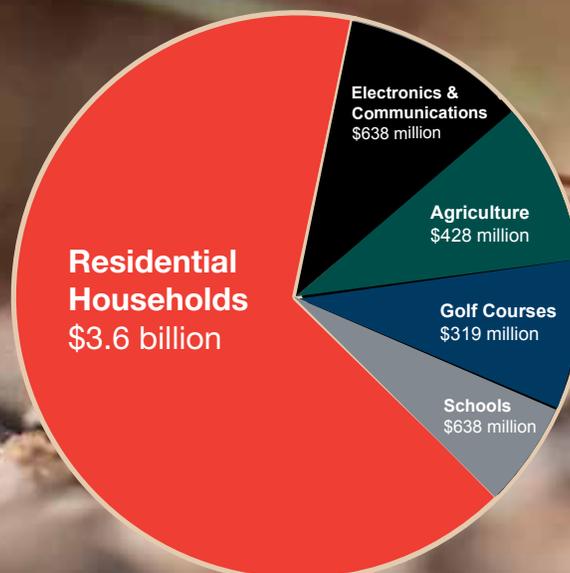
## Fire Ant Activity in Response to Two Treatments

Extinguish® Plus combines Hydramethylnon, with the long-lasting effects of (S)-methoprene for best-in-industry fire ant control. This combination has been successful in the USDA Area Wide Treatment Program.



## TOTAL FIRE ANT LOSSES TO HOUSEHOLDS, BUSINESSES, SCHOOLS, GOVERNMENT AND INSTITUTIONS

**\$5+ BILLION**



From "An economic impact of imported fire ants in the United States of America", by Curtis F. Lard et al.; Department of Agricultural Economics, Texas A&M University, Texas Agricultural Experiment Station, College Station, Texas; Aug. 2006.

# EXTINGUISH PLUS® OUTDOOR APPLICATION

## APPLICATION TIMING

Apply as needed, when ants are active and foraging (when soil temperature is above 60 degrees Fahrenheit). Optimum control can be achieved with early spring or late summer applications. To determine when ants are foraging, place a crumbled potato chip near the mound. If ants do not feed in a few minutes, try the potato-chip test later and apply product when feeding occurs. Apply 2–3 times per year or any time fire ants are spotted. Do not apply product within 6 hours of a rain event. Apply product when area is dry from dew or irrigation. Do not irrigate for 24 hours after application. The bait will become unattractive to ants if it becomes wet.



### BROADCAST APPLICATION

- Use 1.5 pounds of Extinguish® Plus per acre
- Spread it with a hand-held seed spreader, backpack, motorized equipment or aircraft



### INDIVIDUAL MOUND TREATMENT

- Use 2-5 tablespoons of Extinguish® Plus
- Do not apply more than 2 pounds per acre
- Distribute bait uniformly around mound
- Do not disturb mound during application

## OUTDOOR TREATMENT OF FIRE ANTS

### Apply to labeled areas including:

- Airports
- Athletic Fields
- Campgrounds
- Cemeteries
- Commercial Grounds
- Commercial Nurseries including field grown and non-bearing container stock
- Corrals
- Golf Courses
- Grounds surrounding poultry houses (excluding runs and ranges)
- Kennels
- Landscaped Areas
- Lawns
- Nurseries
- Parks
- Pasture\*
- Picnic Grounds
- Rangeland\*
- Recreational Areas
- Roadsides
- School Grounds
- Sod Farms

\*See label for approved states

## TURF, GOLF COURSES, NURSERIES, SOD FARMS, PASTURE, RANGELAND, PARKS AND MORE

Apply bait in and around container or field-grown ornamental nurseries, non-bearing nursery stock, turf, golf courses, sod farms, pasture\*, rangeland\* and parks. Bait may also be used on soil around non-bearing fruit or nut trees.

# APPLYING EXTINGUISH® PLUS WITH SPREADERS

## HAND SPREADERS, WALK-BEHIND SPREADERS, ATV SPREADERS AND OTHERS

### HAND SPREADERS

For small areas, the Ortho® Whirlybird®, Republic EZ Hand spreader and Scott's® HandyGreen® II can be used to broadcast Extinguish® Plus at the recommended rate of 1 to 1.5 lbs/acre. Approximate spreader settings are:



Ortho® Whirlybird®

SPREADER	SETTING
Ortho® Whirlybird®	A*
Republic EZ Hand Spreader	1*
Scott's® HandyGreen® II	1*

\* To apply the recommended amount of Extinguish® Plus at these settings, two passes should be made of the area at a normal walking speed of 2.5 mph (100 ft. covered in 27 seconds).



### WALK-BEHIND SPREADERS

Spyker® Models 44-22 and 22-24 can be used to apply Extinguish® Plus at the recommended rate of 1 to 1.5 lbs/acre (approximate setting 4.1). A “fire ant control plate” can be easily clipped in over the gate opening and must be used.

Other brands of walk-behind spreaders can be set to deliver 1-1.5 lbs of bait using a 1/8” drill bit placed in the hopper gate opening. This 1/8” width should be marked on the edge of the hopper gate opening or on the handle gate setting.



Herd Sure-Feed® GT-77  
Spreader affixed to an ATV

### USING A HERD SURE-FEED® GT-77 SPREADER OFFERS THE FOLLOWING:

- Calibration pre-set at factory for easy preparation of seeder
- Agitator for even feeding of material at all times
- Low amperage pull on electric motor for ATV's and vehicles with small systems
- Even spread of material
- Base of grey iron with galvanized hopper for strength on rough ground
- Unit comes complete...No accessories are needed
- Hitches for most ATV's and other vehicles are available
- Stainless steel pivot plate
- Holds 1.2 bushels of material

# APPLICATION FOCUS ON . . . . .

## BROADCAST APPLICATION WITH THE HERD SURE-FEED® GT-77

MPH	WIDTH	OZ/30 SECONDS	LBS/ACRE	TIME TO COVER 100 FT
<b>Plate 1 @ 1.5 lbs of Extinguish® Plus</b>				
10	20	4.8	1.5	6.8 seconds
10	20	4.7	1.5	6.8 seconds
10	20	4.6	1.5	6.8 seconds
9	20	4.5	1.5	7.6 seconds
9	20	4.4	1.5	7.6 seconds
9	20	4.3	1.5	7.6 seconds
<b>Plate 2 @ 1.5 lbs of Extinguish® Plus</b>				
5	20	2.2	1.5	13.6 seconds
4	20	2.1	1.5	17 seconds
4	20	2	1.5	17 seconds
4	20	1.9	1.5	17 seconds
4	20	1.8	1.5	17 seconds

**Tip 1:** For further calibration, take 2.0625 times the amount caught for 30 seconds. The answer you will get will be the MPH you must run to put on 1.5 lbs/acre.

**Tip 2:** Place a line using a permanent marker at various levels inside the Herd Spreader hopper showing the number of acres that will be treated with that level (pounds) of bait. This makes it easy for the applicator to refill without having to weigh the amount of bait each time.

### ADDING OR CHANGING THE HERD SURE-FEED® GT-77 SPREADER BLOCKING PLATE

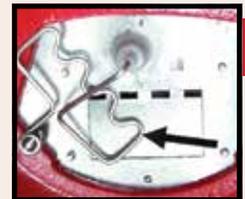
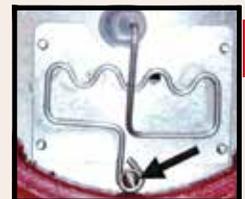
**Step 1:** Slide the lid off of the top of the spreader [Figure 1]. The lid is held in place by a spring, so be careful not to pinch your fingers when sliding off.

**Step 2:** Look inside the spreader and at the bottom locate the bushing screw [Figure 2, black arrow]. Remove the screw with a flathead screwdriver.

**Step 3:** Slide the stainless steel agitator wire to the side [Figure 3, black arrow]. If a blocking plate is already installed under the agitator wire, then pull the plate off of the four corner screws, being careful not to bend the agitator wire.

Note: You can now see four openings on the spreader bottom. The blocking plate serves to cover three of these openings, so that only one opening can dispense bait. Otherwise, too much bait would be released.

**Step 4:** Slide the desired blocking plate back over the four screws and make sure the plate is flat on the spreader bottom [Figure 4]. The notched side of the blocking plate must face away from the bushing screw for the plate to go on correctly. Put the bushing screw into the hole and partially turn it into the hole with a screwdriver.



# APPLICATION FOCUS ON BROADCAST APPLICATION WITH THE HERD SURE-FEED® GT-77

## ADDING OR CHANGING THE HERD SURE-FEED® GT-77 SPREADER BLOCKING PLATE CONTINUED

**Step 5:** Look underneath the outside of the spreader between the four-bladed fan and the underside of the metal hopper [Figure 5]. You should see a small flathead screw above the fan with a stainless steel wire on both sides of the screw [Figure 6]. The stainless steel wire is the lower part of the agitator wire shown in Step 3. If the wire is not centered over the screw on top of the fan blade, the agitator wire will not move when the fan is turning and bait will not be dispensed. From experience, the lower part of the agitator wire may become disconnected when performing Step 3 above. If the lower agitator wire is properly positioned, then finish tightening the bushing screw in Step 4. If it is not, you will have to maneuver the agitator wire inside the hopper (see Step 3) until it is properly centered on the screw above the fan blade before tightening the bushing screw in Step 4.

**Step 6:** Move the control handle on the outside of the spreader back and forth [Figure 7, yellow arrow]. Pushing the control handle towards the hopper closes the gap beneath the block plate and shuts off the release of bait, while pulling the handle away from the hopper opens the gap and allows bait release.

**Step 7:** While moving the control handle (see Step 6), watch the hole in the blocking plate [Figure 8]. The hole must be completely open to properly dispense bait and completely closed to stop bait from exiting the hopper. A partially closed hole will not properly dispense bait and may result in blockage. It is best to become familiar with the handle direction needed to fully open and close the gap beneath the blocking plate while the spreader is empty of bait. In addition, it is a good idea to make sure the hole is fully opened or fully closed when the control handle is moved to the opened or closed position, respectively.



5



6



7



8

Left Photo: Blocking plate with gap beneath fully opened.

Center Photo: Blocking plate with gap beneath partially closed.

Right Photo: Blocking plate with gap beneath fully closed.

Controls and eliminates colonies  
Starts killing ants immediately  
after they feed on the bait  
Sterilizes the queen  
Multiple application methods  
Approved for indoor and outdoor use



**To learn more about our comprehensive line of  
fire ant management solutions, call your distributor.  
Learn more at 1-800-248-7763 or visit [www.CentralAntControl.com](http://www.CentralAntControl.com)**

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